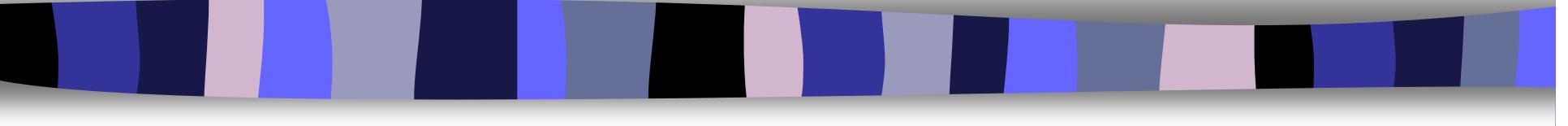


Status of Lake Trout

(Salvelinus namaycush)



in
Georgian Bay and North Channel

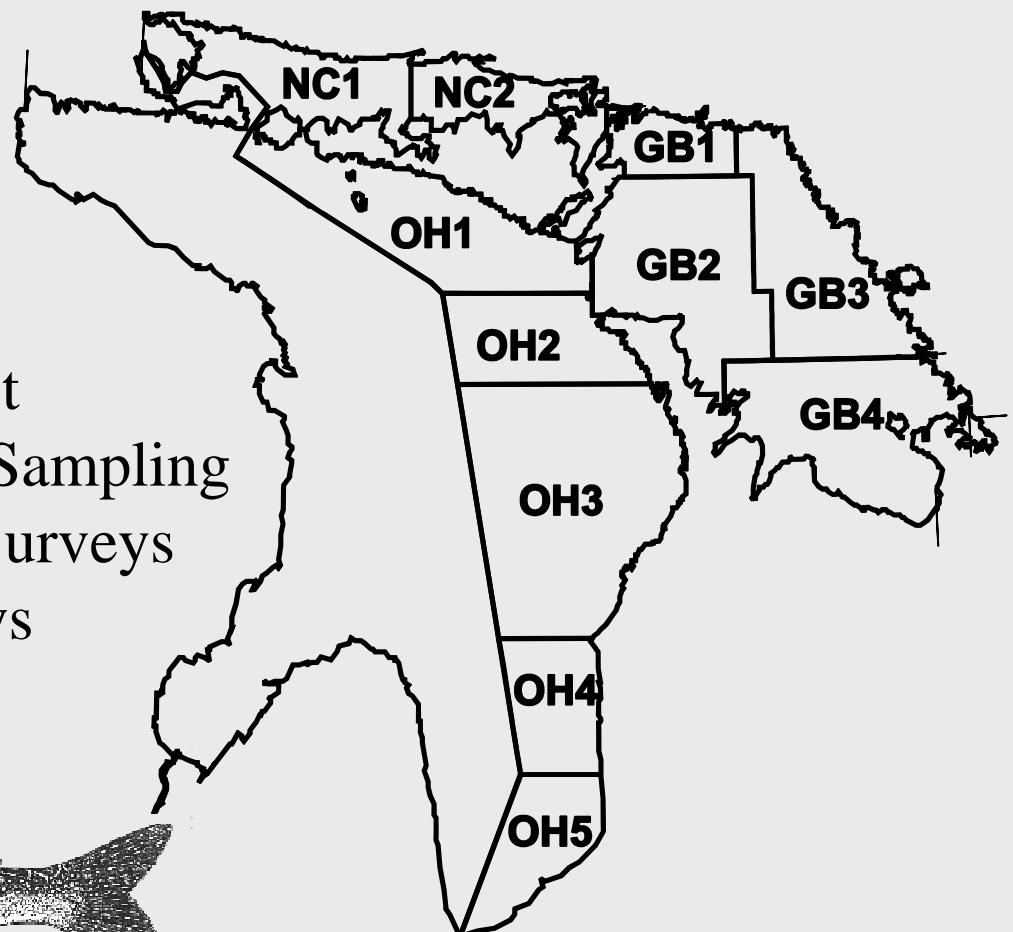
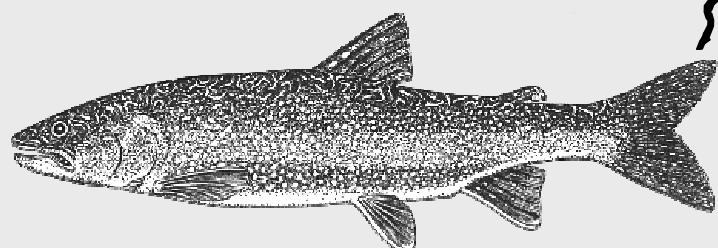
Lloyd C. Mohr
Upper Great Lakes Management Unit,
Lake Huron Office, OMNR
Owen Sound, ON

Background

Statistical Districts
in Cdn Waters

Data Sources:

- Commercial Harvest
- Commercial Catch Sampling
- Index Assessment Surveys
- Recreational Surveys

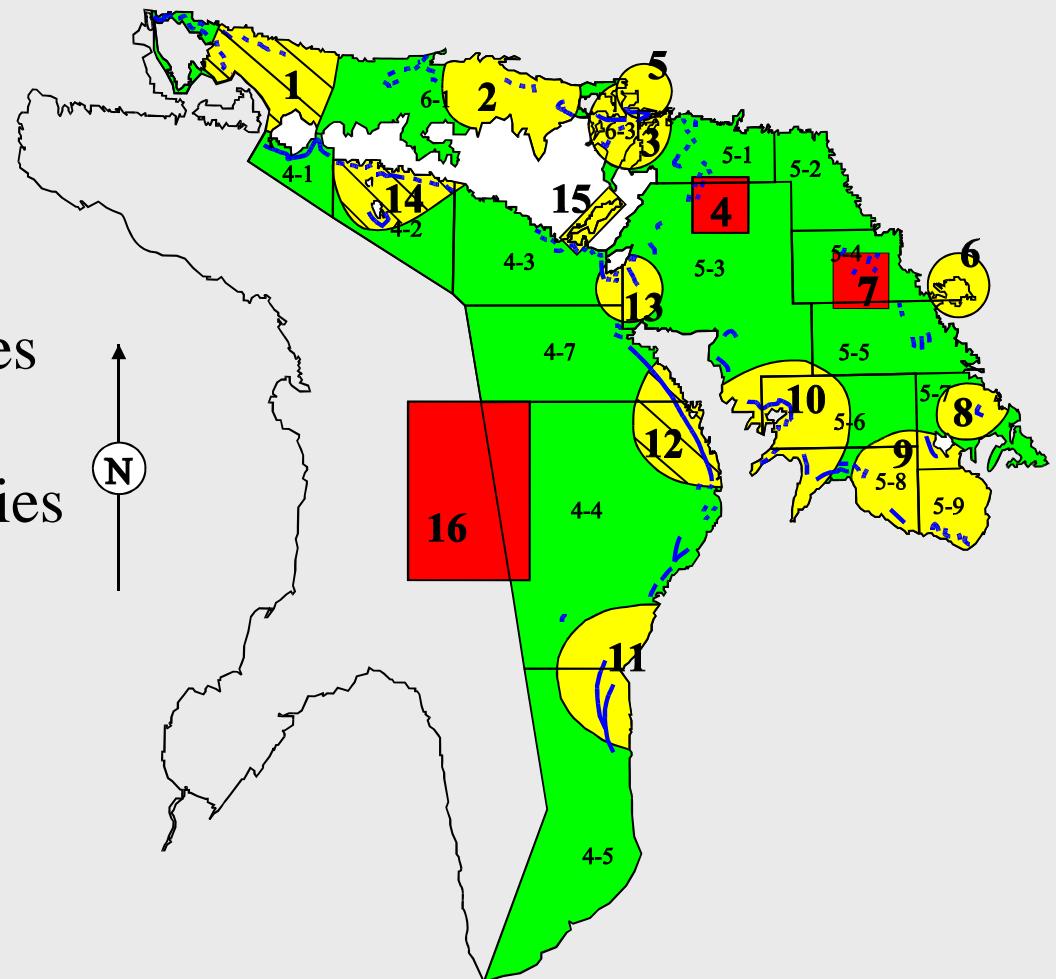


Lake Trout Rehabilitation

1996 Rehab Plan

7 Active Rehab Zones

2 Proposed Sanctuaries



Lake Trout Rehabilitation

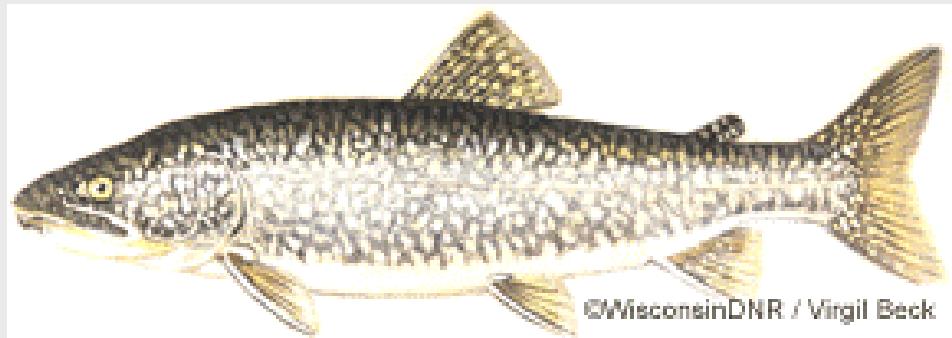
Objectives

Spawning Populations 2005

Natural Reproduction 2010

Self-Reproducing in Former Range 2020

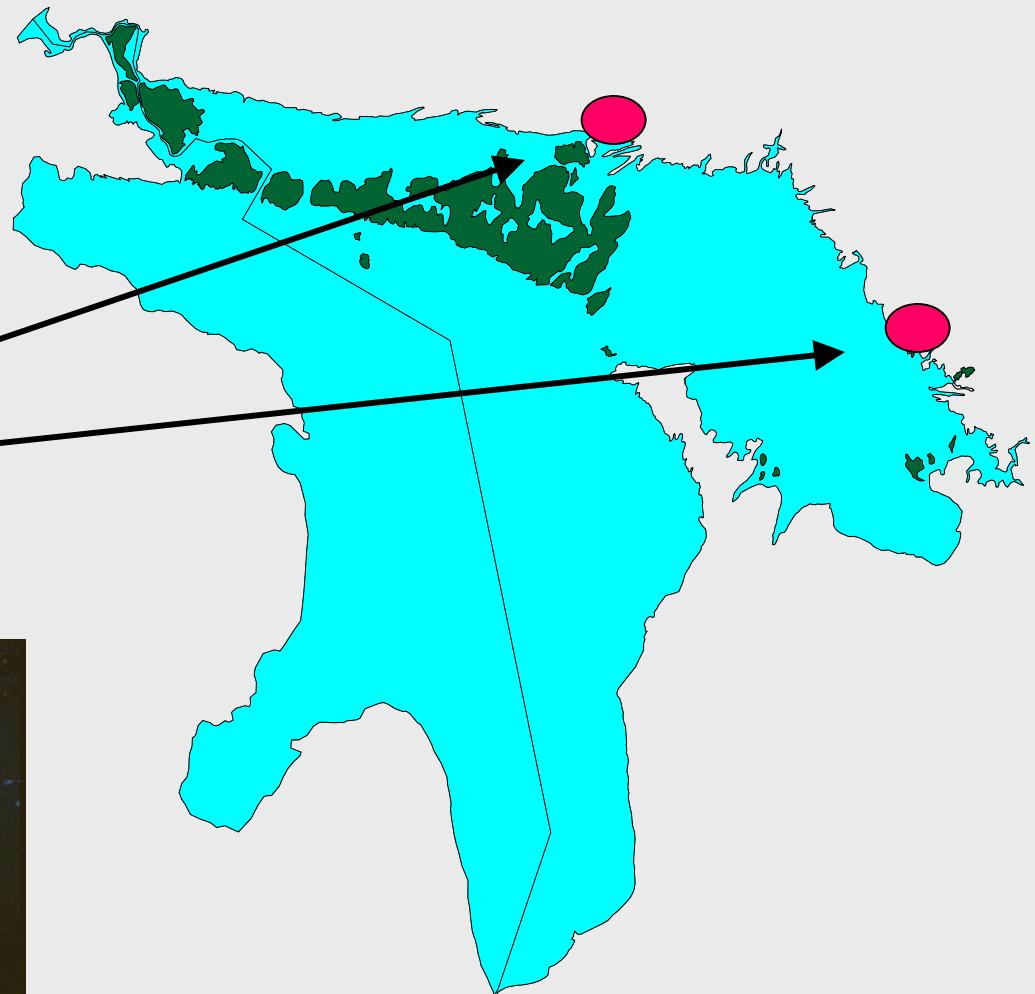
Annual sustained yield 1.12 million kg



Lake Trout Sources

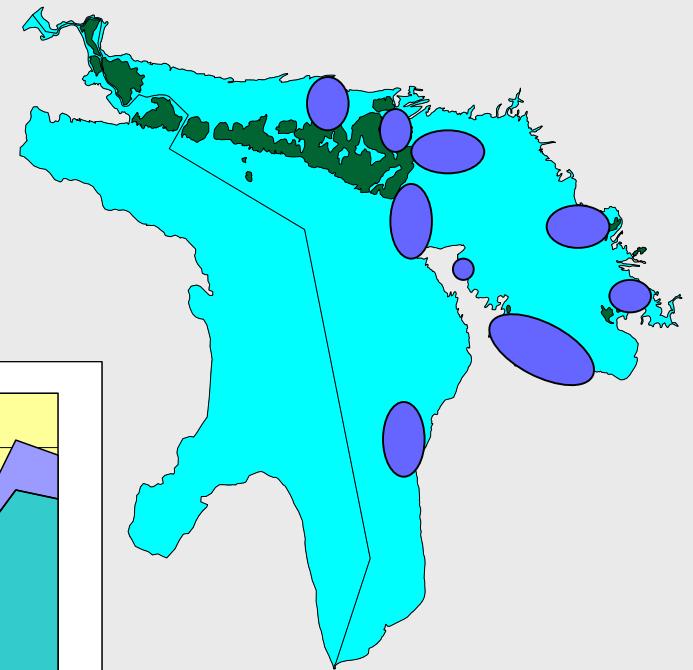
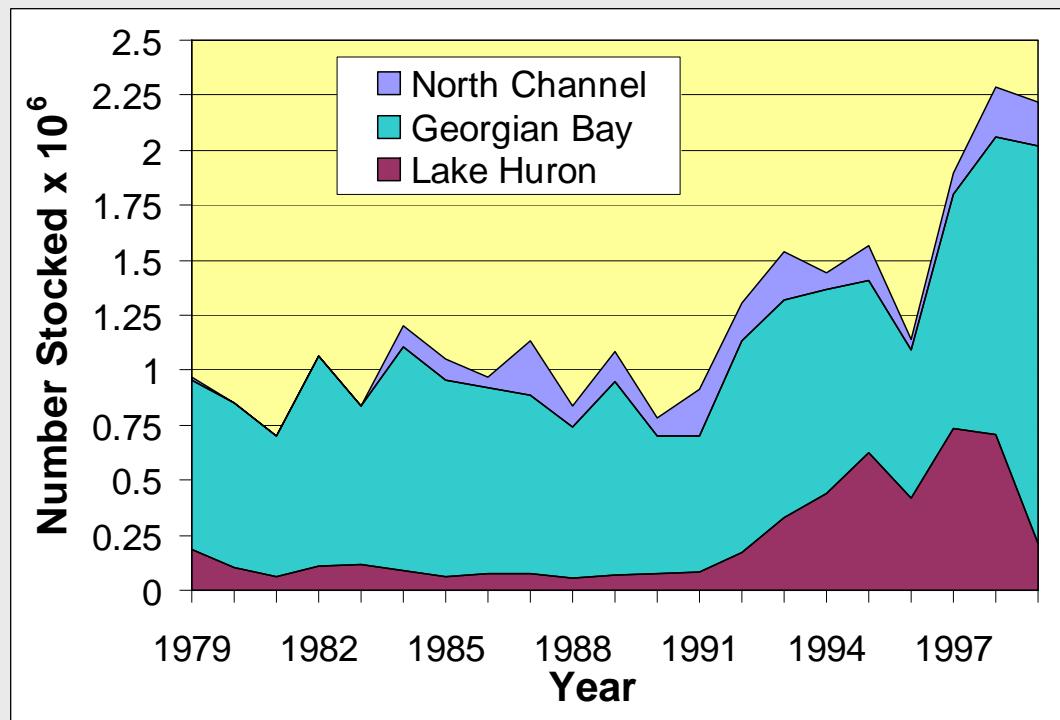
Remnant Stocks

- Iroquois Bay
- Parry Sound



Lake Trout Sources

Stocking

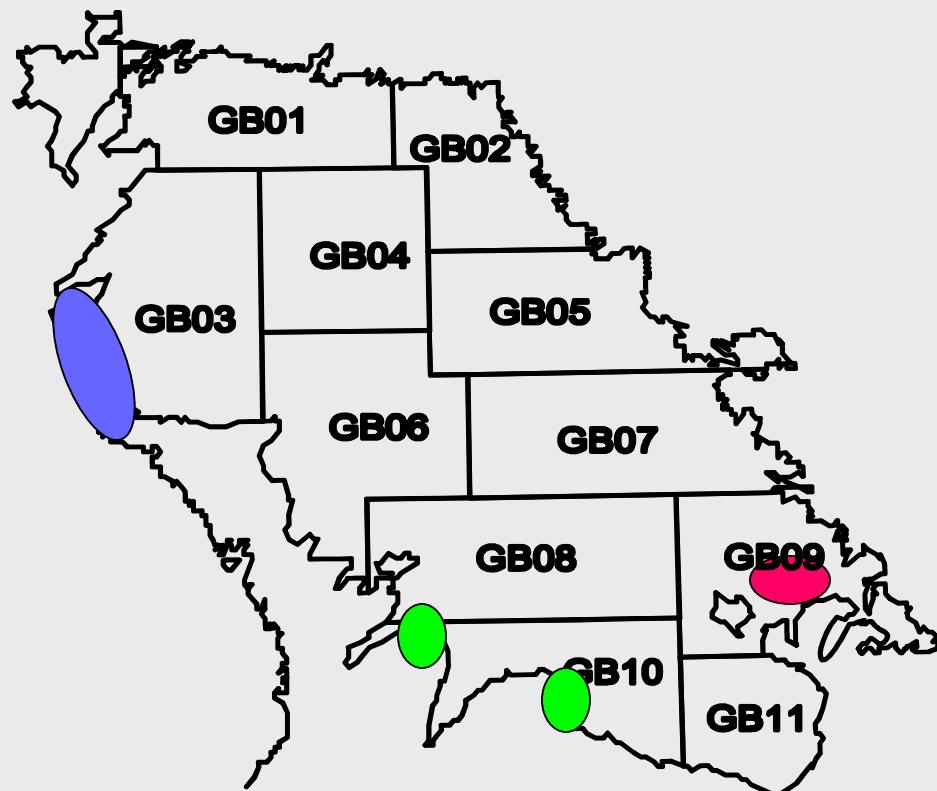


11 sites

- Average 850K G.Bay
- 110K N. Channel
- 1991 30% Backcross G. Bay
- 1996 Pure Lake Trout

Lake Trout Sources

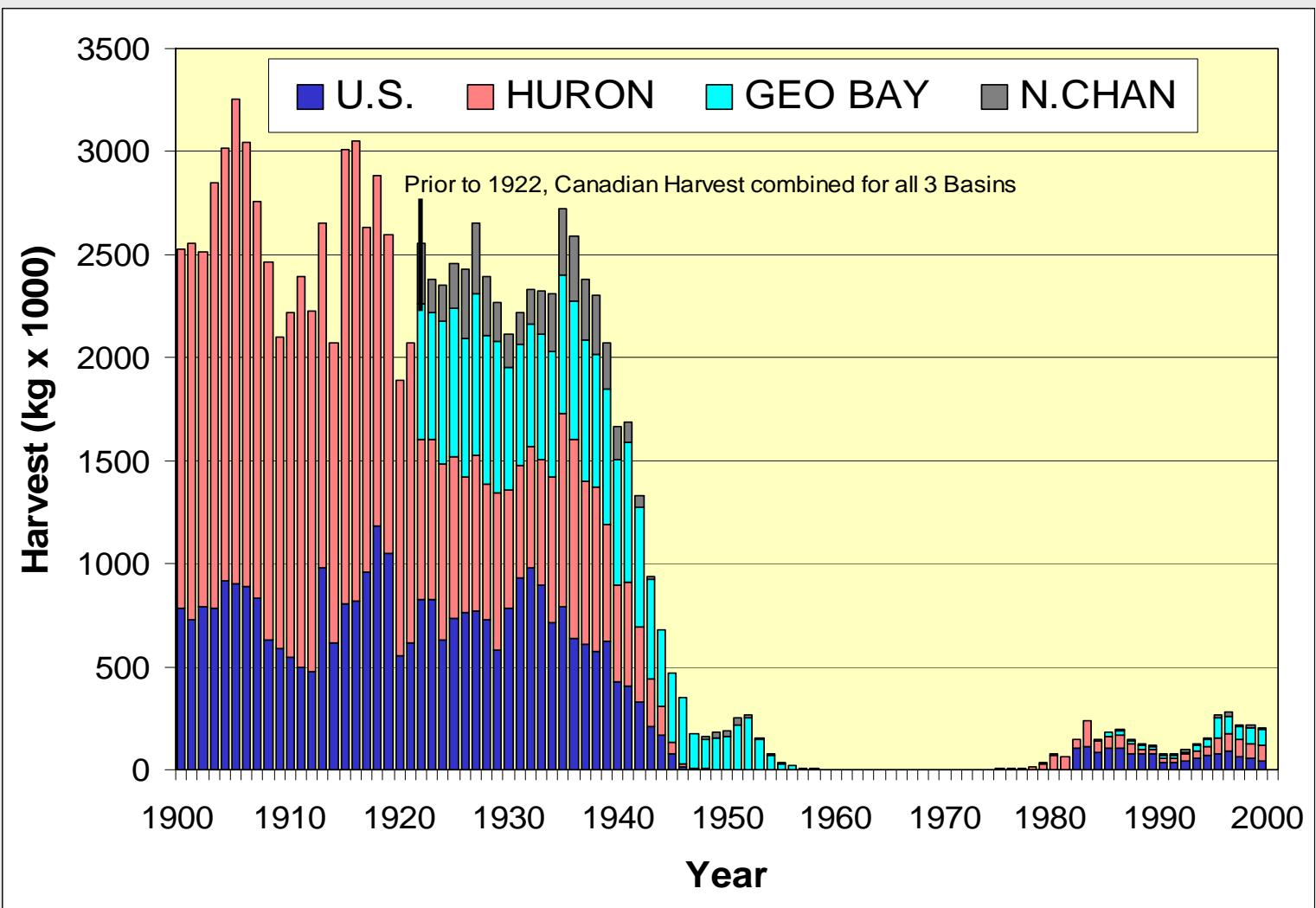
Movement (CWT)



		%
GB03	40.4	
LH03	20.1	
LH04	27.4	
GB10	8.8	
GB09	97.6	
GB08	2.4	
GB10	56.5	
GB11	14.5	
GB08	14.2	
GB09	9.5	

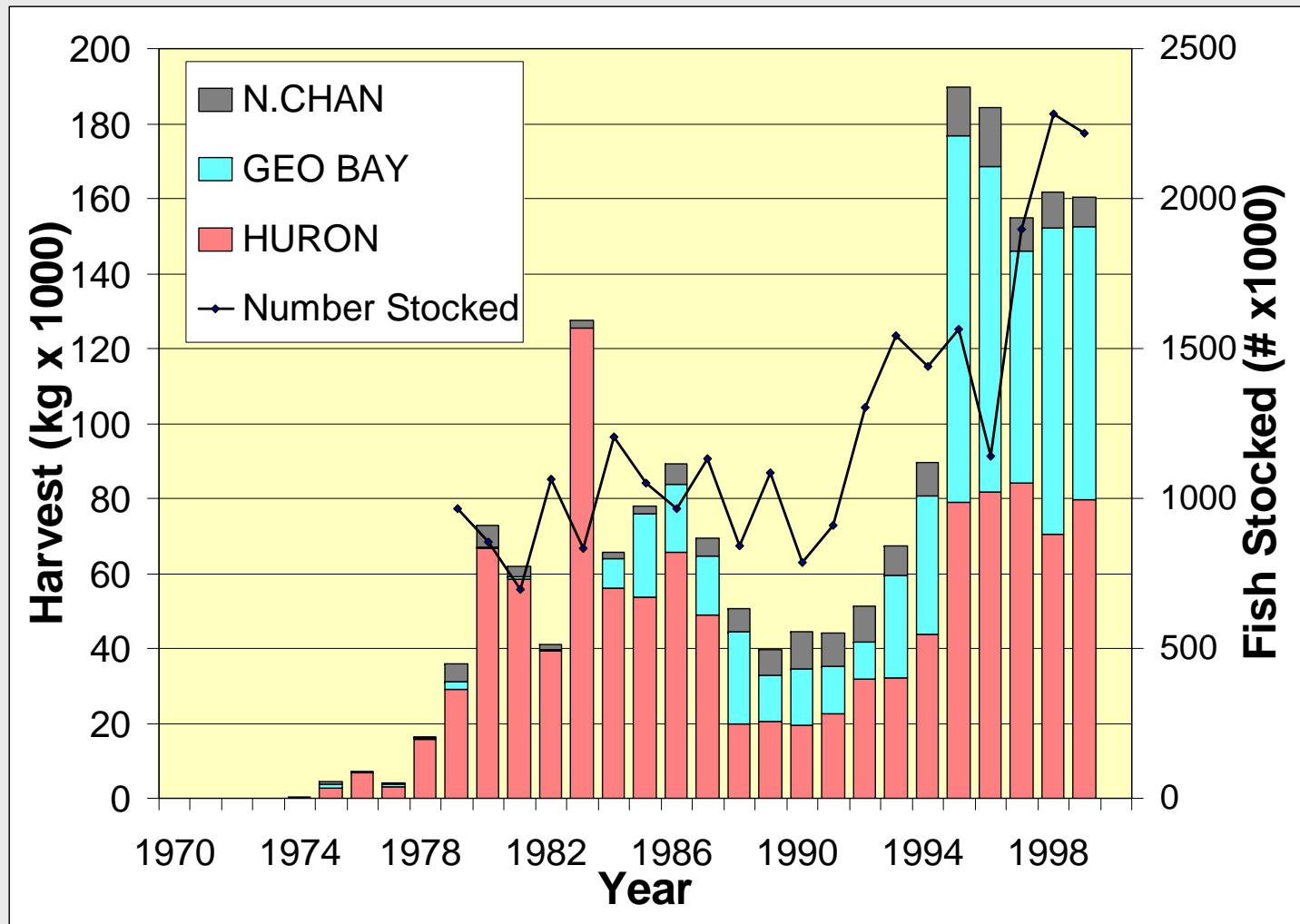
Lake Trout Exploitation - Commercial

Annual Harvest



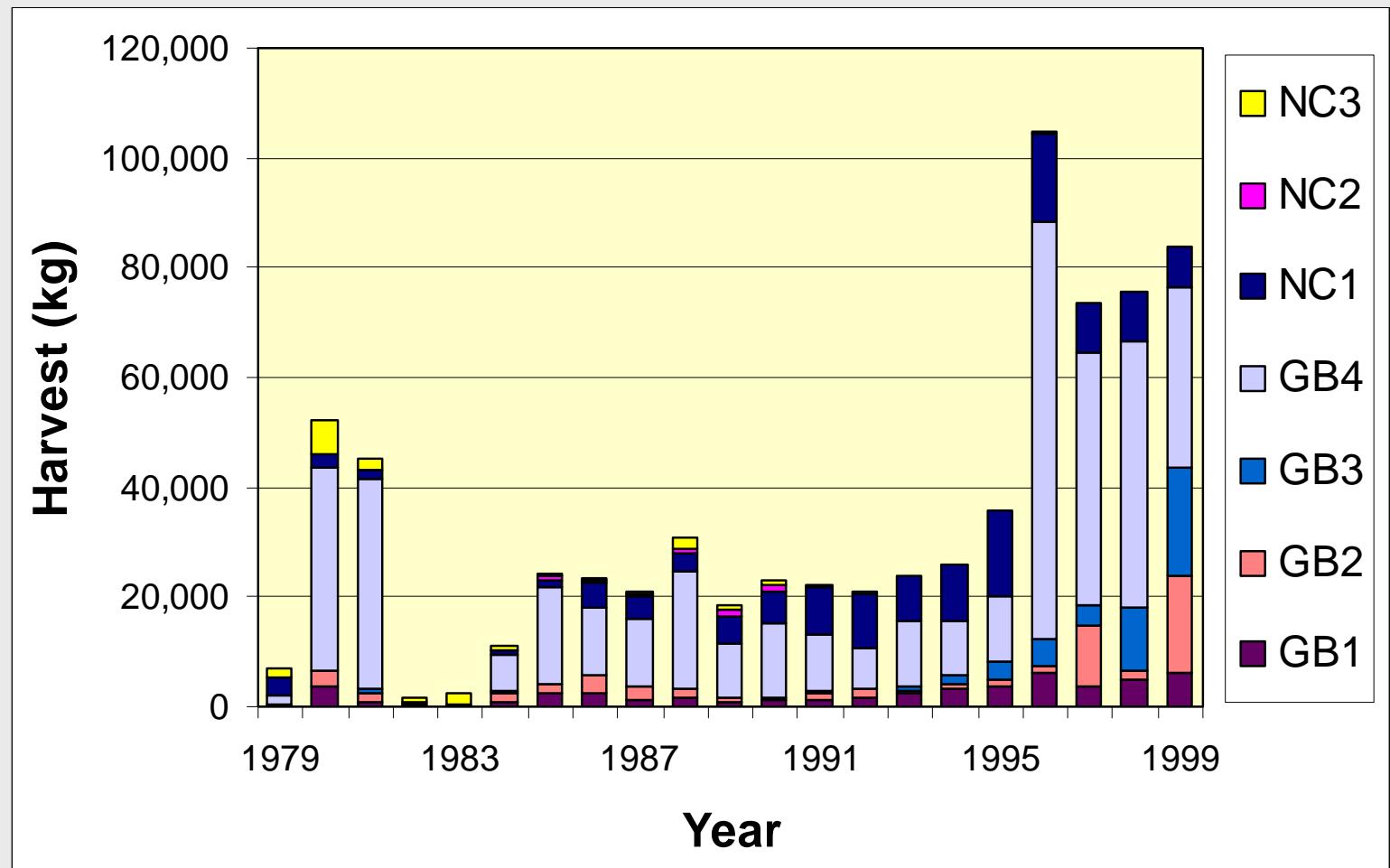
Lake Trout Exploitation - Commercial

Annual Harvest



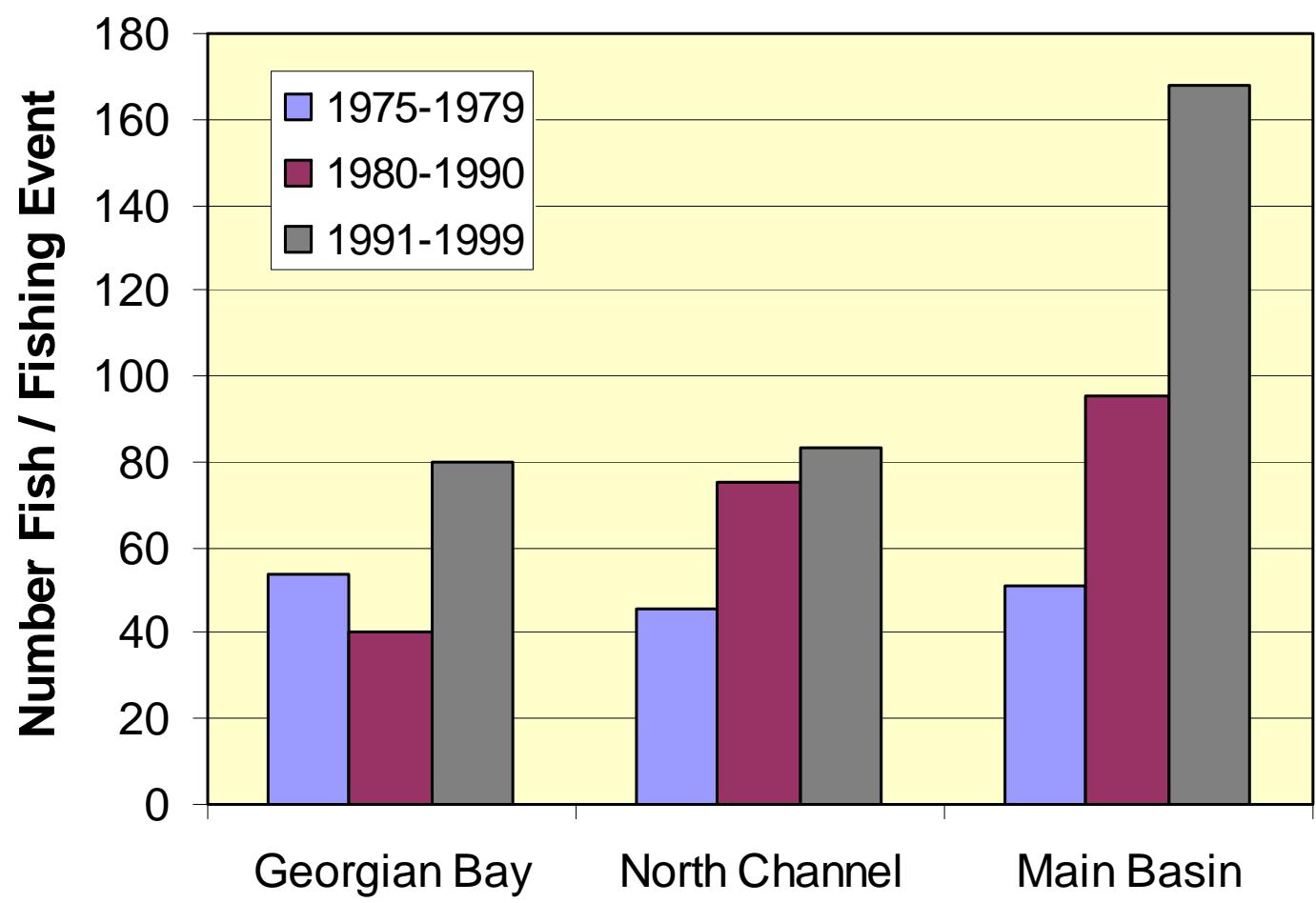
Lake Trout Exploitation - Commercial

Statistical Districts



Lake Trout Exploitation - Commercial

Incidental Catch



Lake Trout Exploitation - Commercial

Incidental Catch (%)

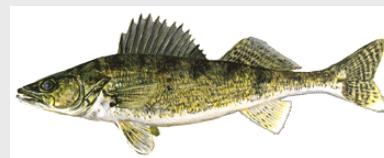
GB NC MB



95.7 92.1 87.8



2.9 <0.1 3.6



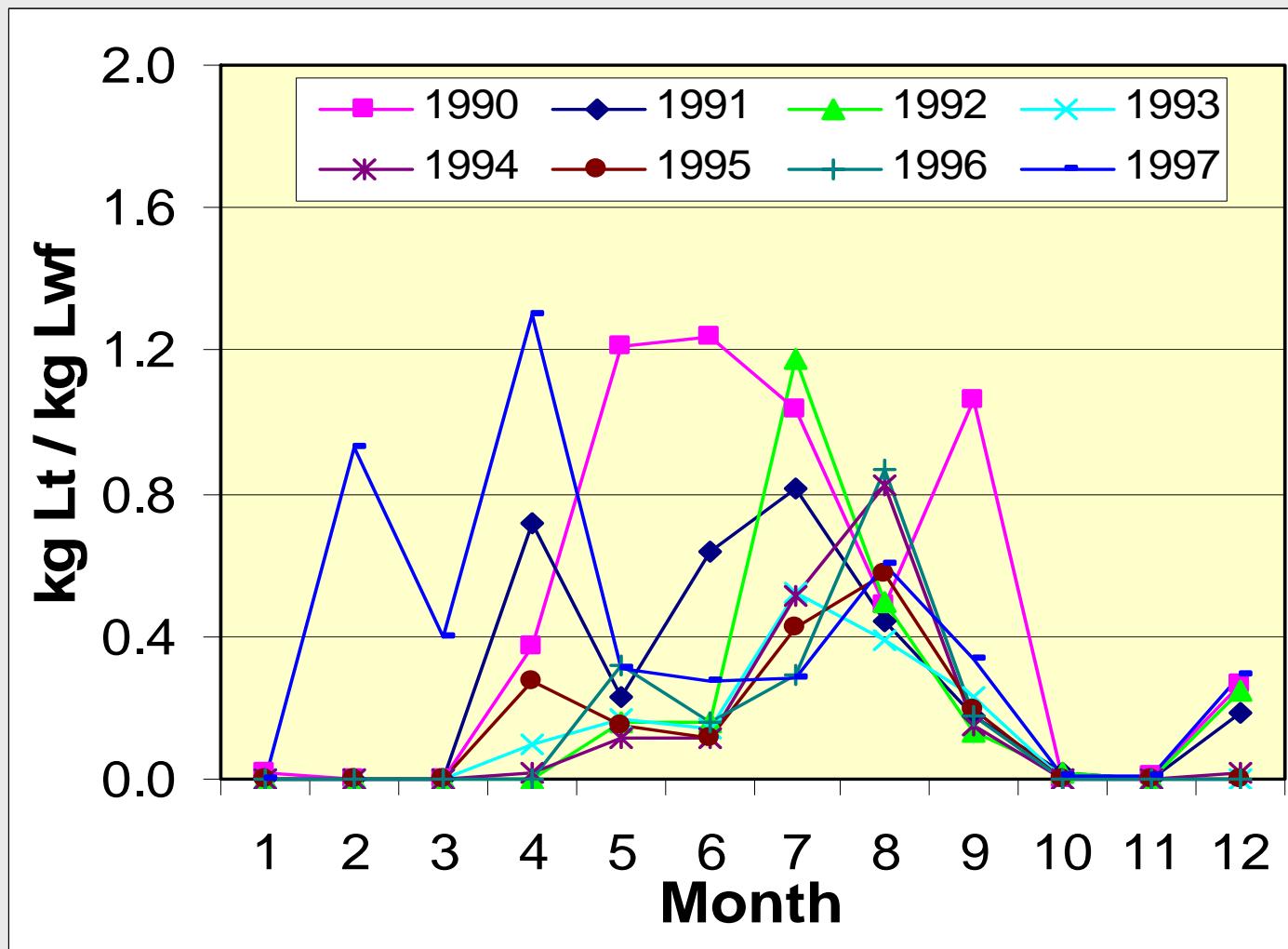
0.7 6.5 6.6



0.7 1.3 2.1

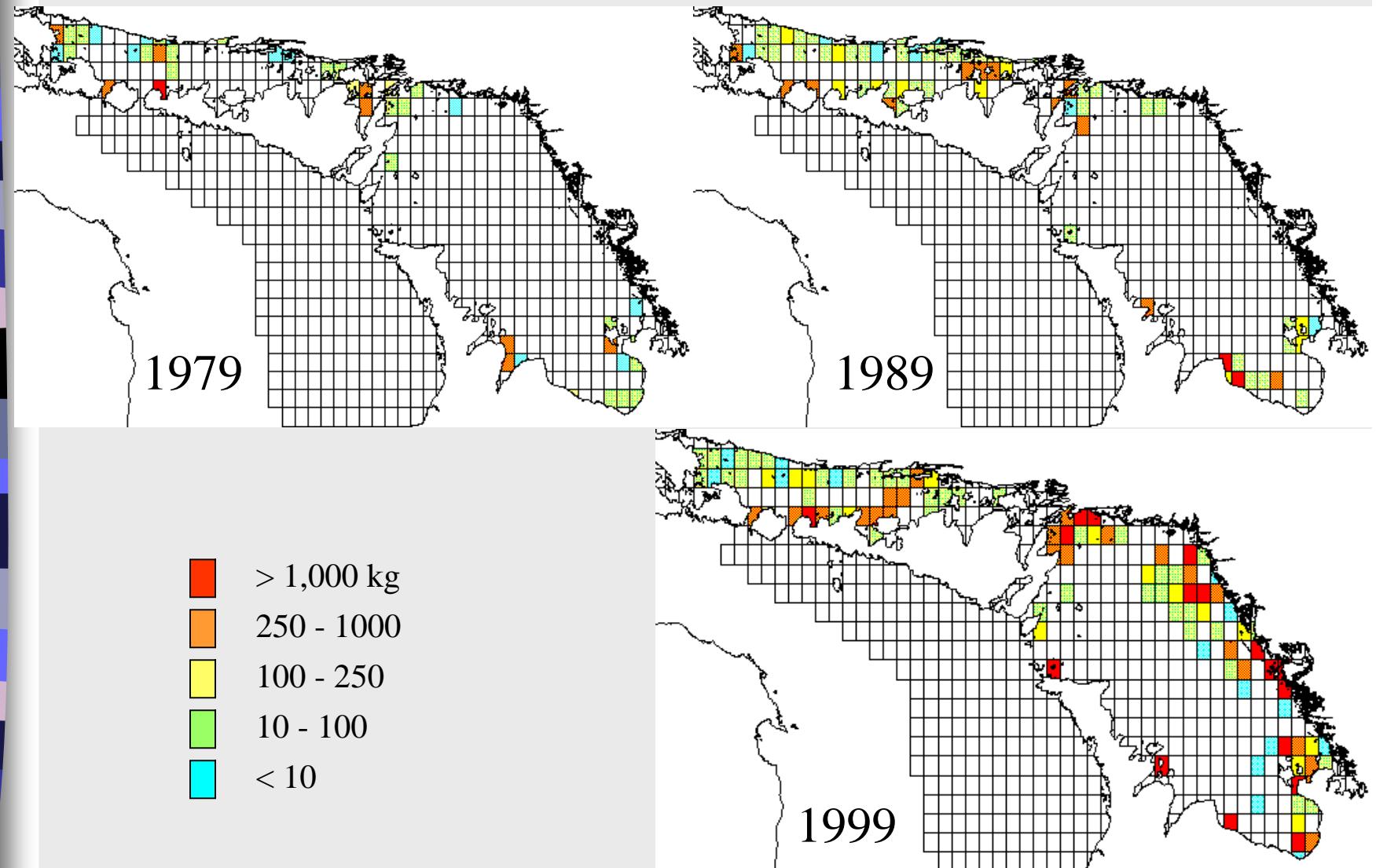
Lake Trout Exploitation - Commercial

Incidental Catch (Seasonal)



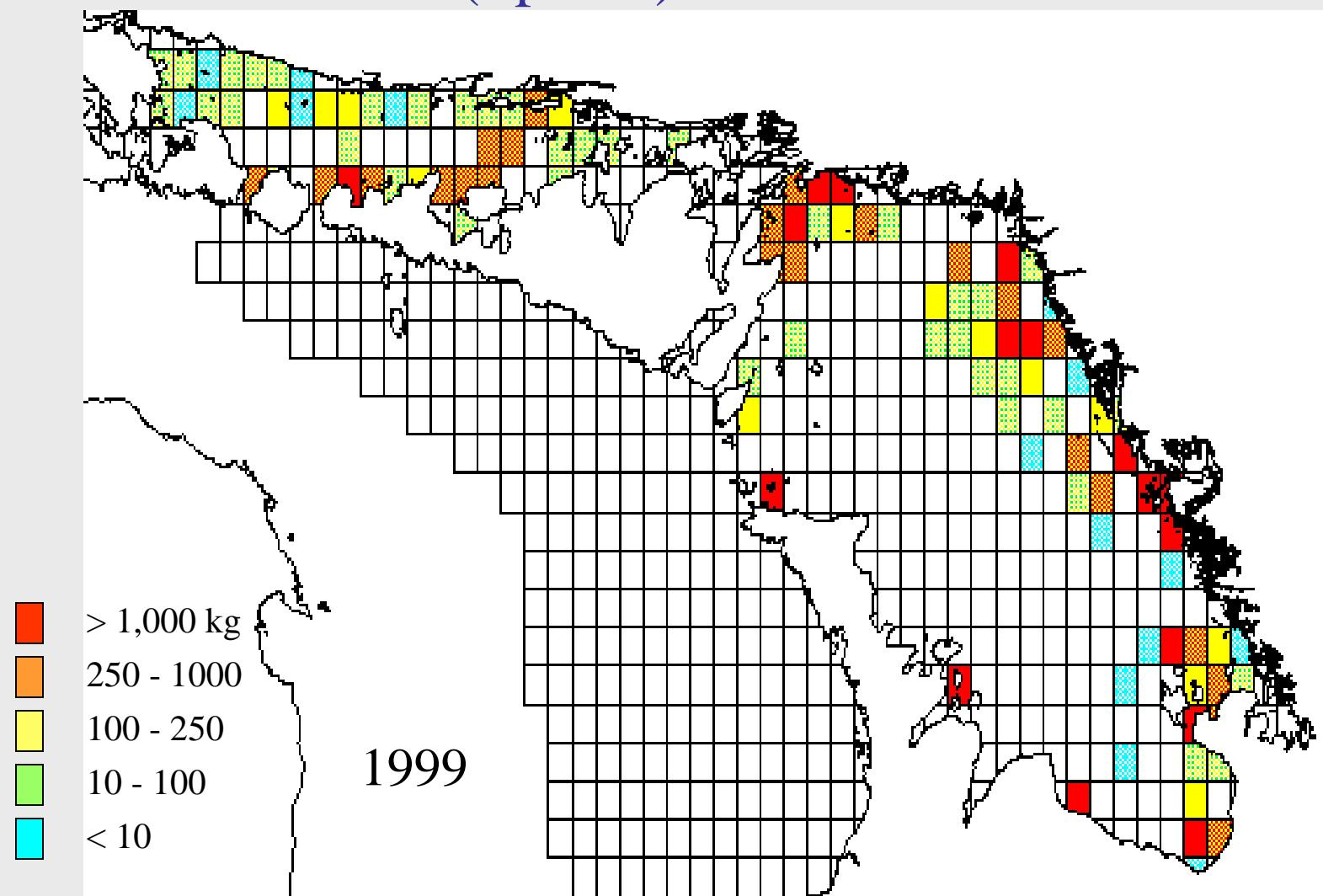
Lake Trout Exploitation - Commercial

Incidental Catch (Spatial)



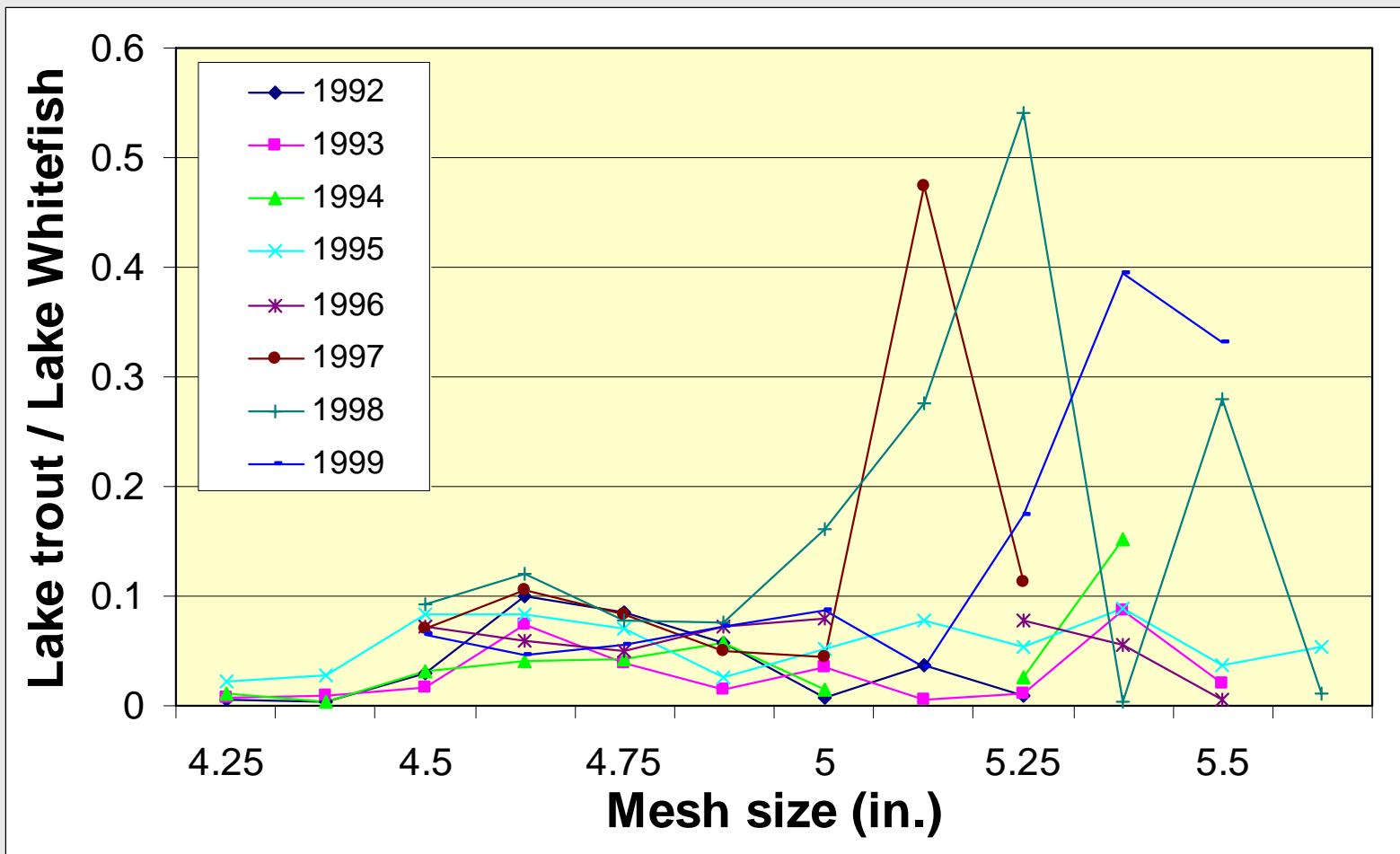
Lake Trout Exploitation - Commercial

Incidental Catch (Spatial)



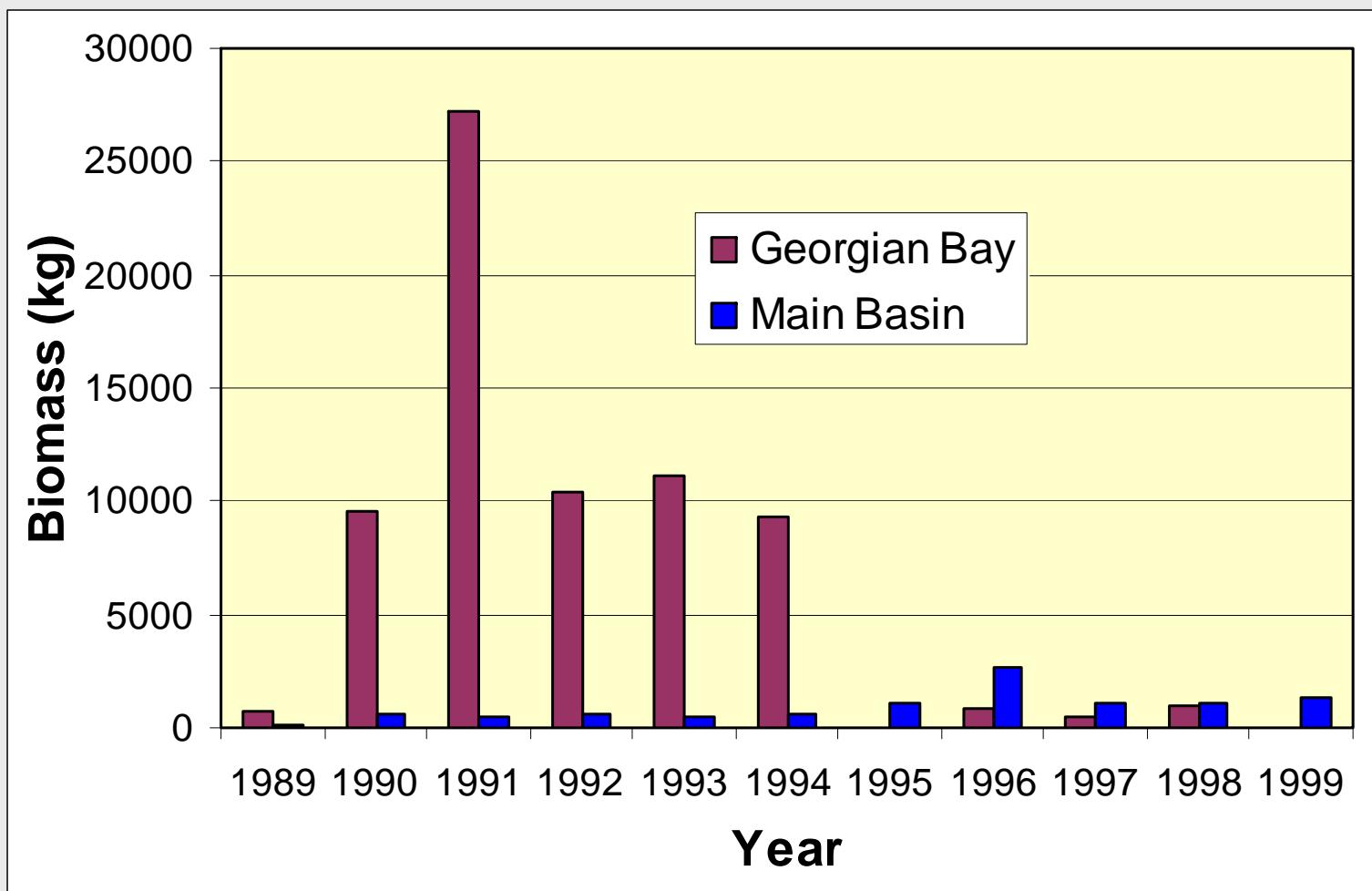
Lake Trout Exploitation - Commercial

Incidental Catch (mesh size)



LakeTrout Exploitation - Sport

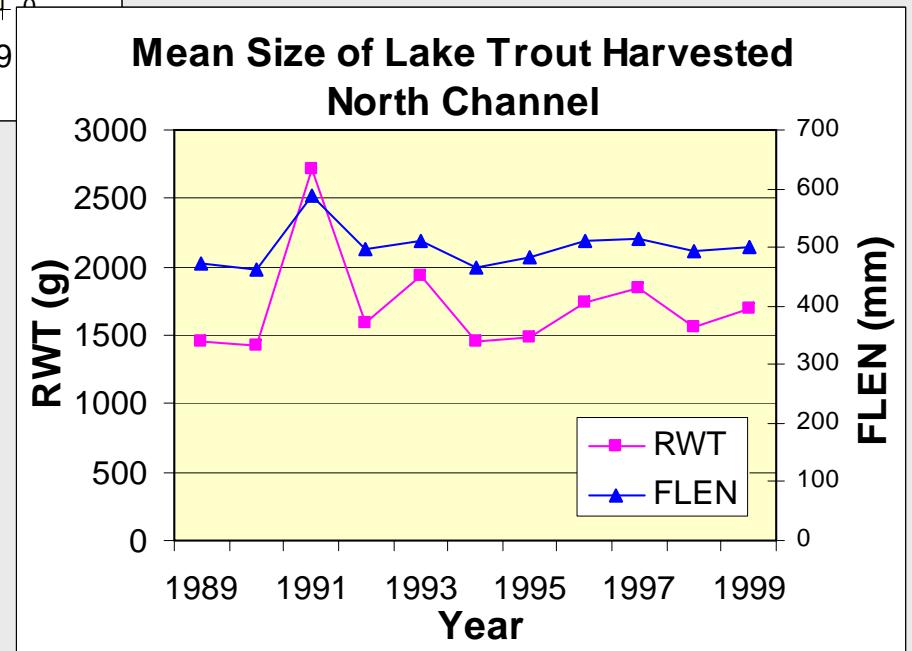
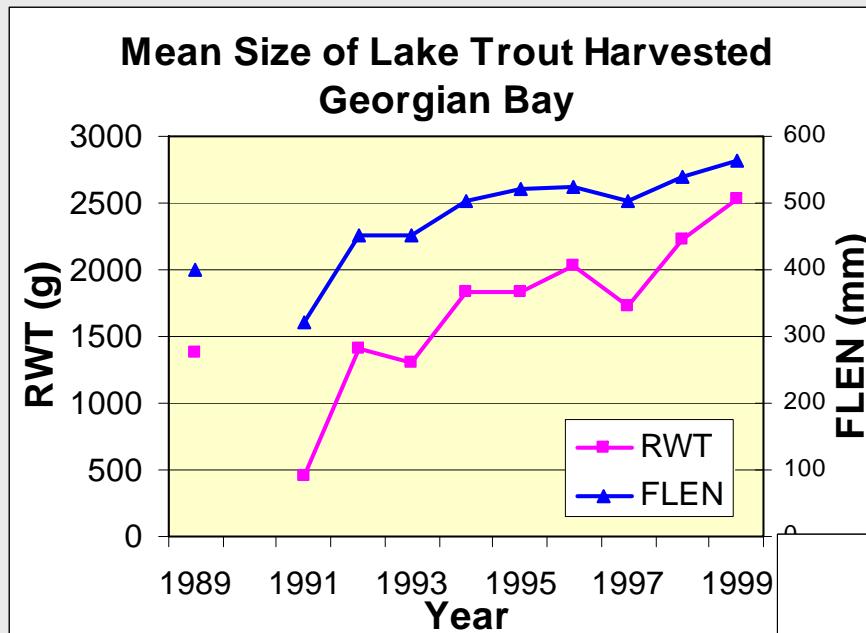
SW Georgian Bay



Lake Trout Biological Data

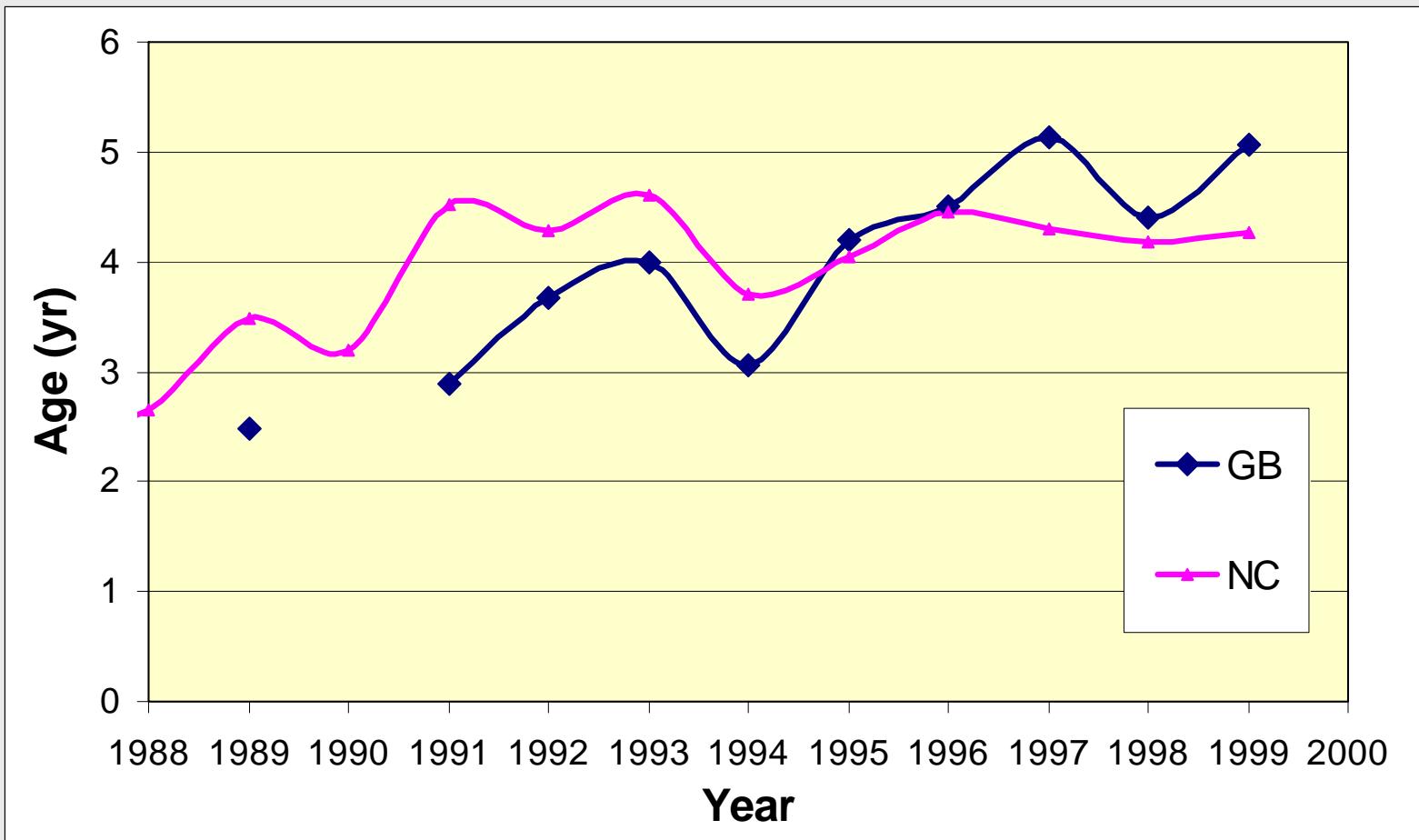


Lake Trout - (Mean Size)

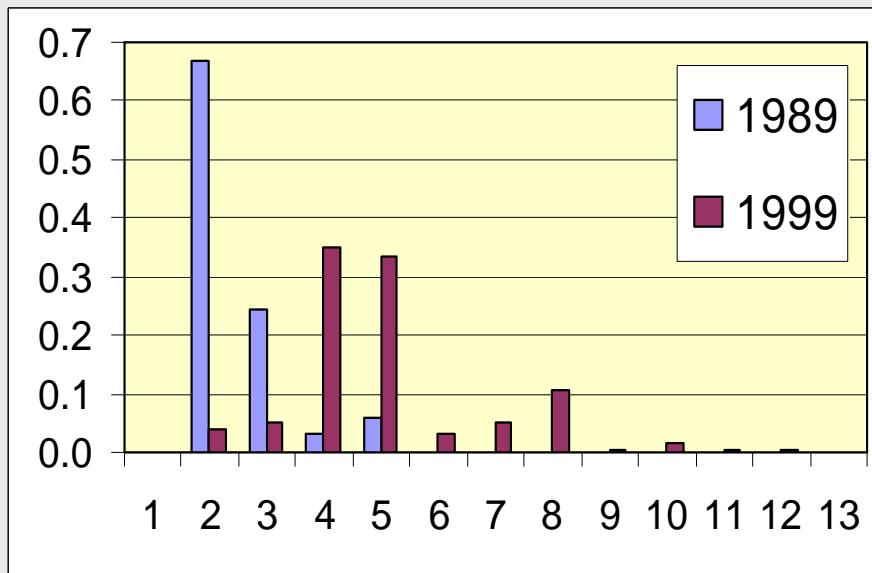


LakeTrout - (Mean Age)

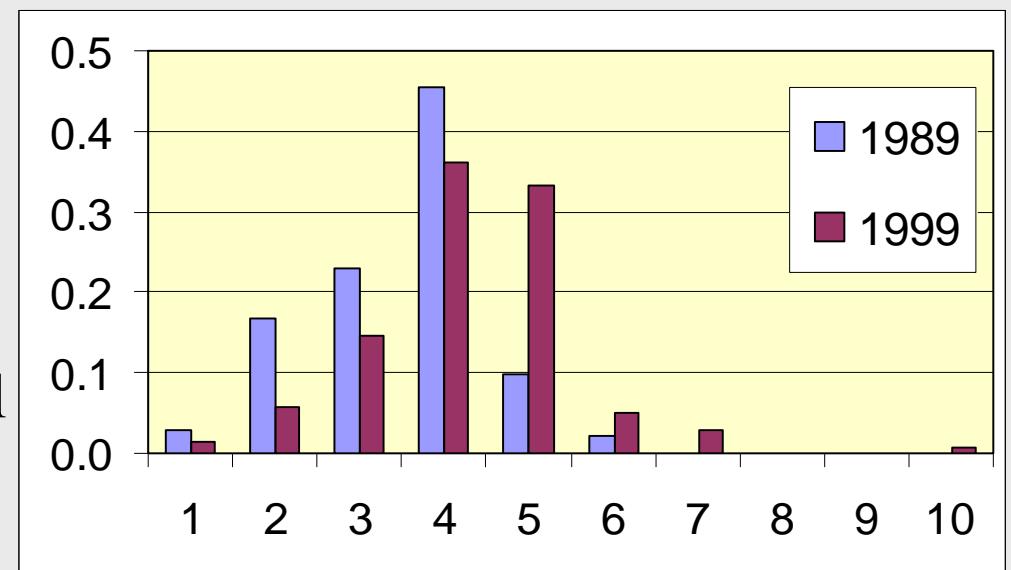
Known Age Fish only



Lake Trout - (Age Distributions)



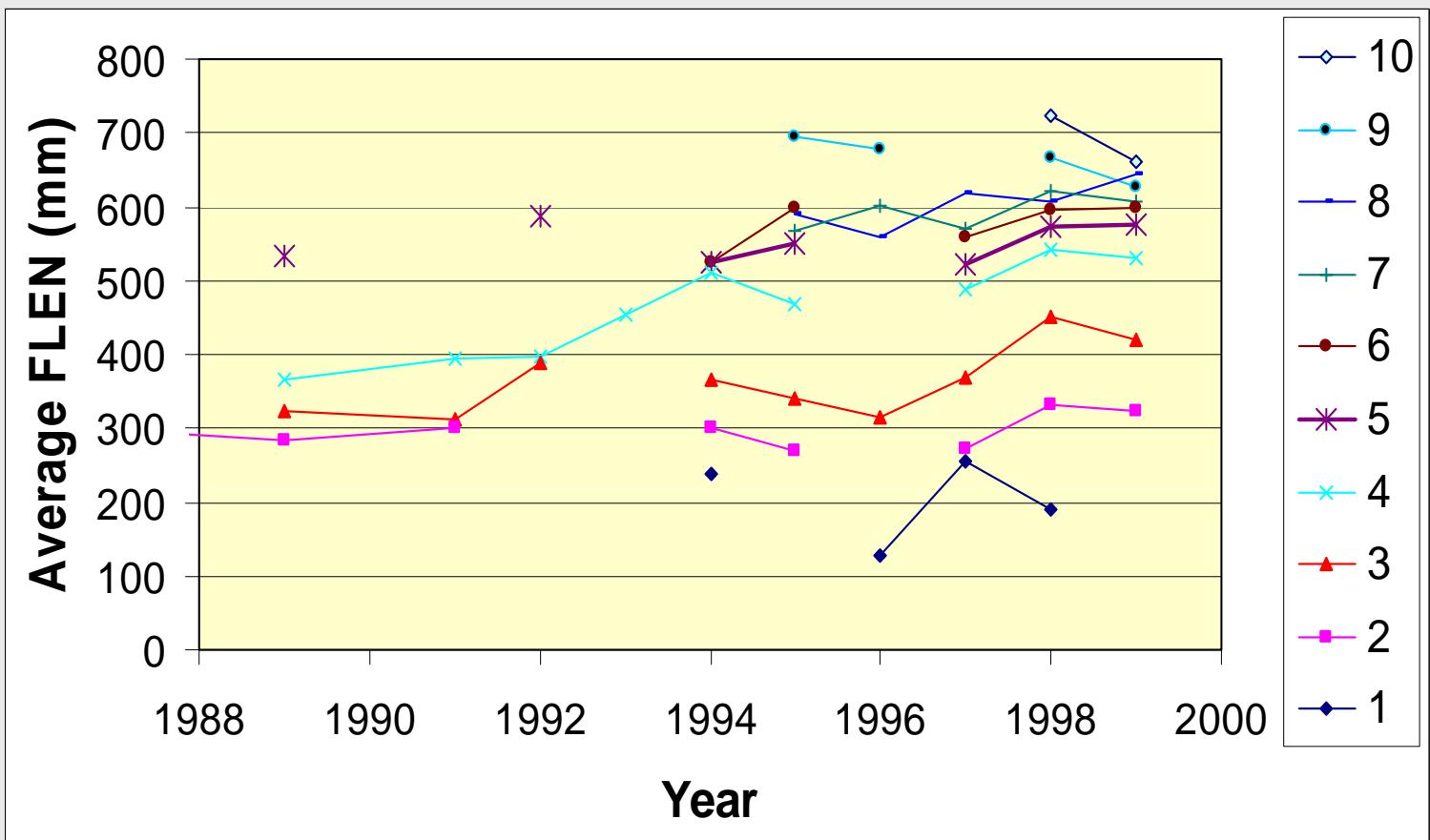
Georgian Bay



North Channel

LakeTrout - (Size at Age)

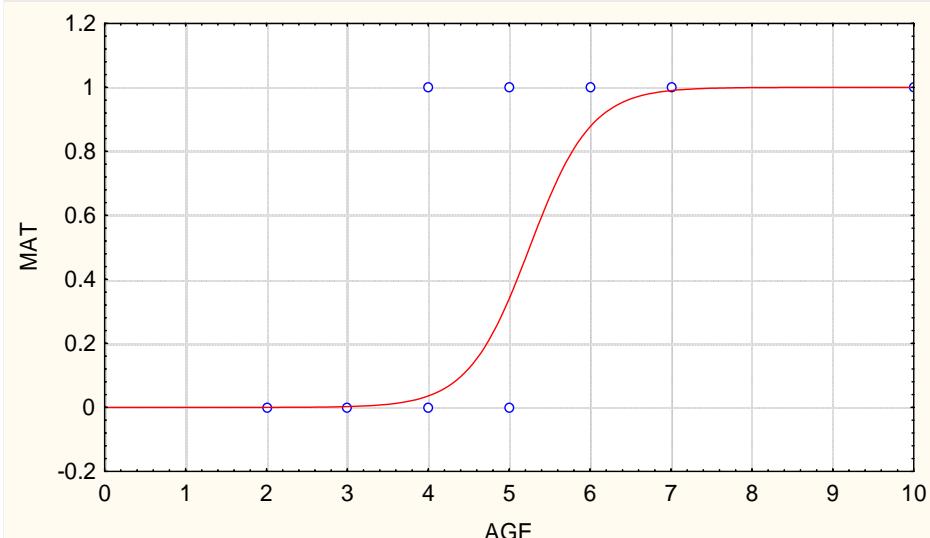
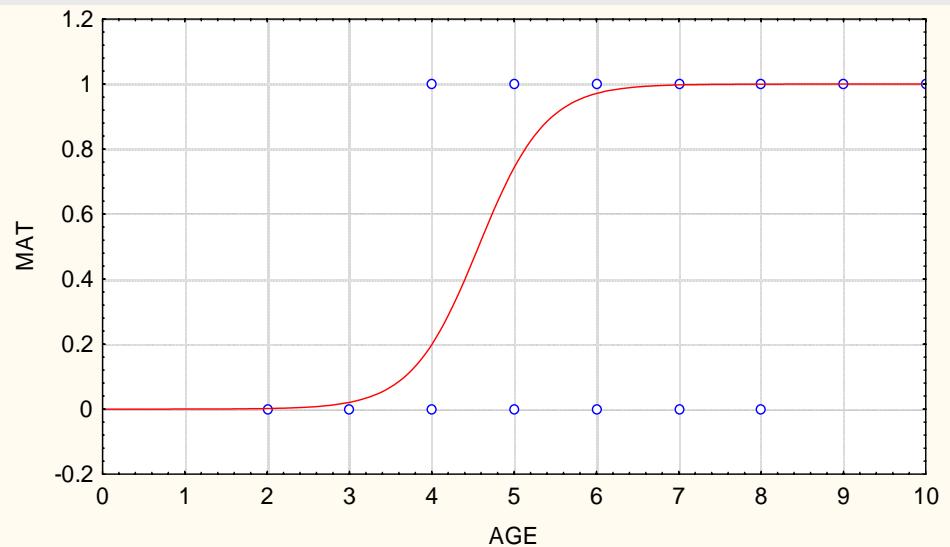
Known Age Fish only



Lake Trout - (Maturity Schedule)

Females

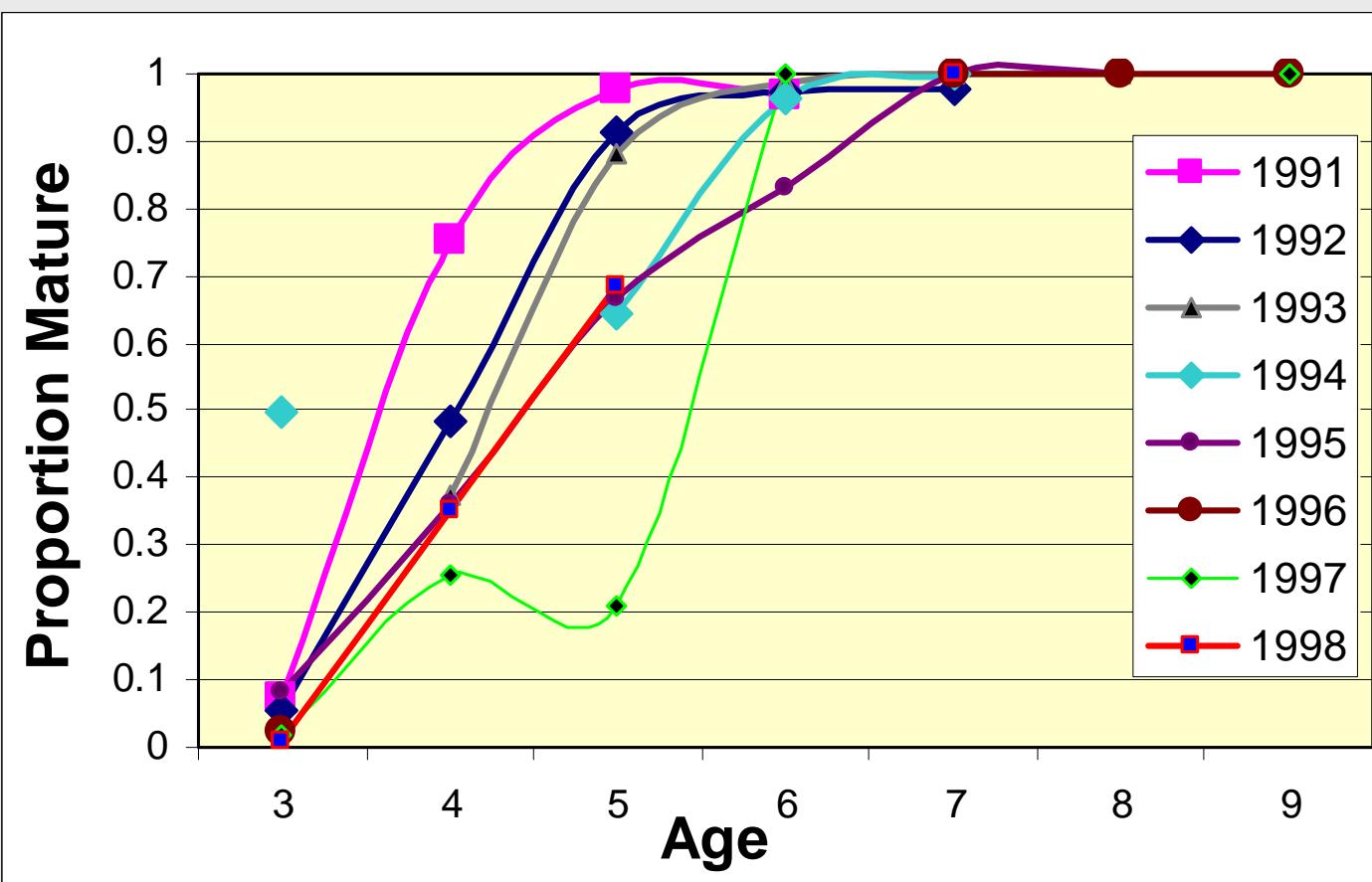
Georgian Bay
50% - 4.6 yr



North Channel
50% - 5.3yr

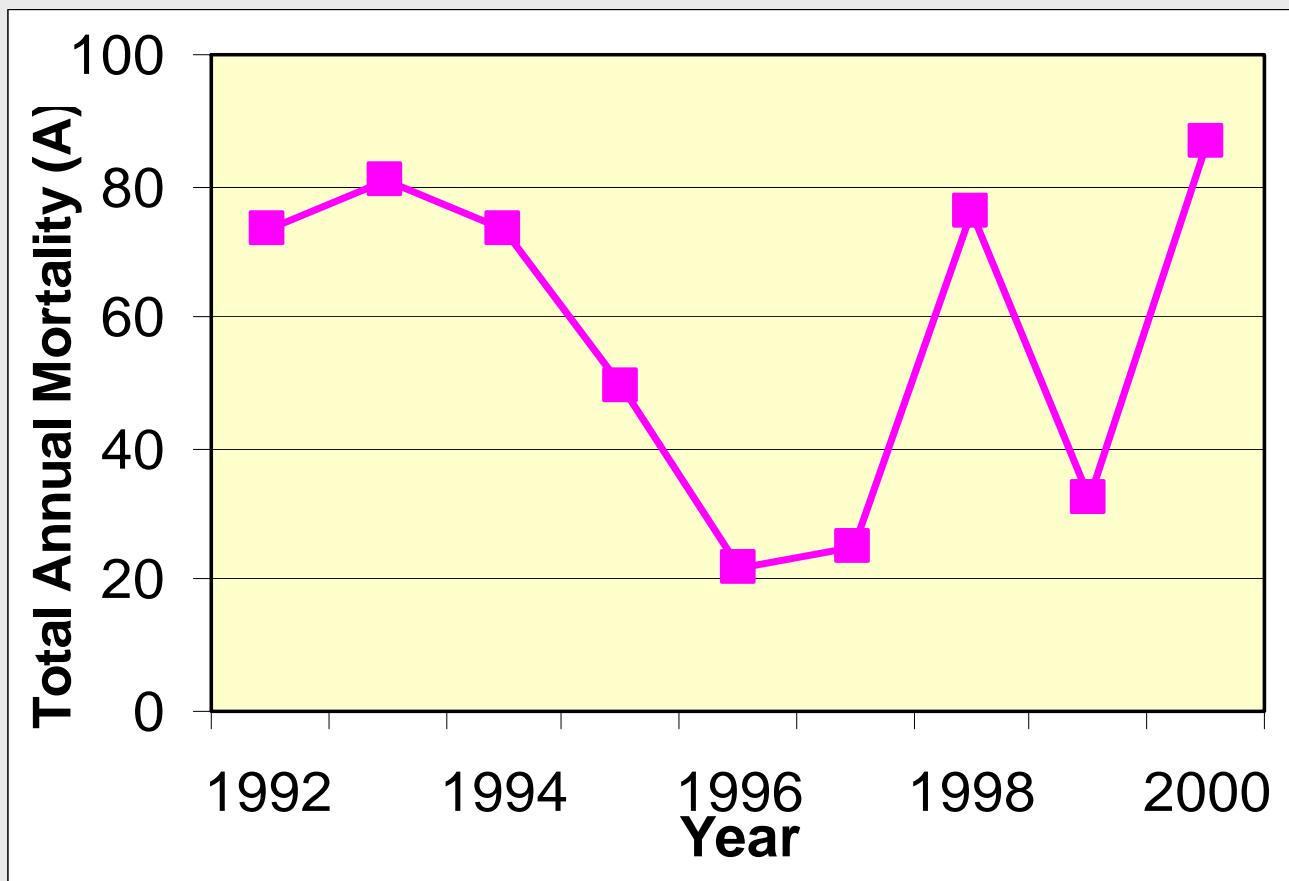
LakeTrout - (Maturity Schedule)

SW Georgian Bay (females)



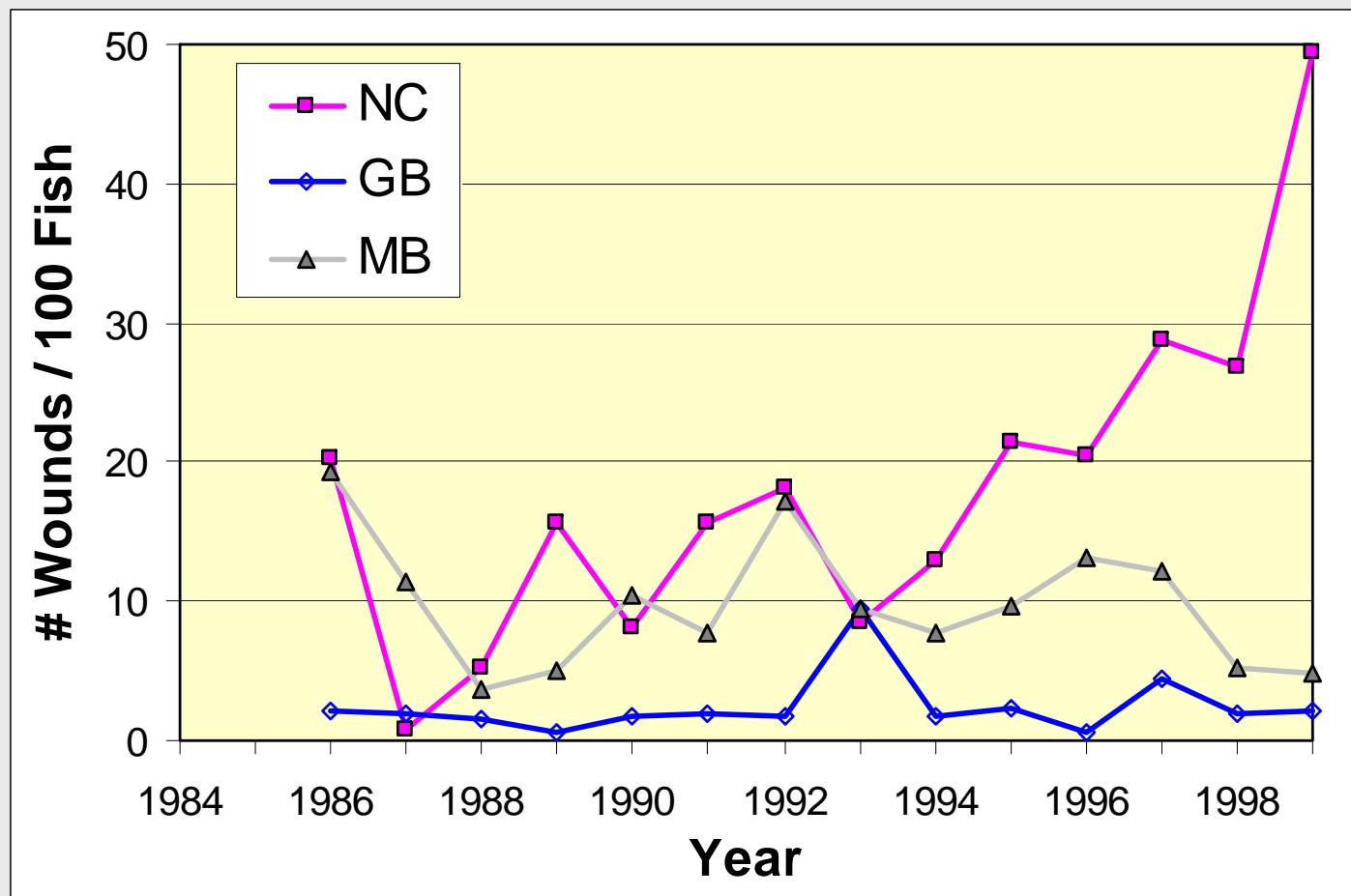
Lake Trout - (Mortality)

SW Georgian Bay (Age 4+)



LakeTrout - (Sea Lamprey Wounds)

All Data Sources



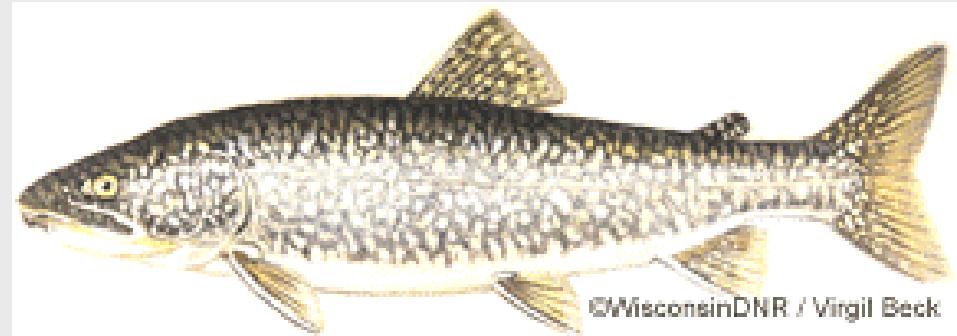
Lake Trout Rehabilitation

Objectives

Spawning Populations 2005 ✓

Natural Reproduction 2010 ✓

Self-Reproducing in Former Range 2020
Annual sustained yield 1.12 million kg



Lake Trout Rehabilitation

Evaluation

- Lake Trout Survival highly variable
- Spawning Stock Size under investigation
- Egg Deposition unknown
- Natural Reproduction present 2-4 locations
- Age Structure constricted
- Range expansion in P. Sound
- Abundance CPUE variable
- Yield ???



©WisconsinDNR / Virgil Beck

Lake Trout Management

Exploitation Review

- *Commercial Quota and Recreational Limits*
- *Incidental Catch Rates*
- *Reporting / Assessment Issues*

Lake Trout Management

Lake Trout Rehabilitation Plan Review

- *summarize/evaluate data*
- *model results*
- *LTRP Benchmarks*
- *re-evaluate assessment protocol/requirements*
- *where are we?*

Lake Trout Management

